



Final Performance Report

Accelerated Housing Reconstruction Activity (AHORA) El Salvador

Grantee: CHF International
Cooperative Agreement: 519-A-00-02-00078-00
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1. Background

Earthquakes measuring 7.6 and 6.6 on the Richter scale devastated El Salvador on January 13th and February 13th 2001, respectively, causing 1,159 deaths and injuries to more than 8,122 individuals. In all, more than 1.5 million people nationwide or more than a quarter of the country's population was affected. According to the Economic Commission for Latin America (CEPAL), combined economic losses from the two earthquakes are placed around \$1.7 billion. The Departments of Ahuachapan, La Libertad, La Paz, San Vicente, Sonsonate, and Usulután received the brunt of the damage from the first earthquake. The second earthquake, centered approximately 20 miles east of San Salvador, severely affected the Departments of Cuscatlan, La Paz, and San Vicente. Social infrastructure was especially hard hit. For instance, the total housing damage reported by the Government of El Salvador (GOES) is 276,594 units, including 166,529 destroyed and 110,065 units damaged. Earthquake damage contributed to an already dire housing shortage. According to the UNDP, in 1997, El Salvador faced a housing deficit of 570,000 homes. With a national average of five persons per household, 48% of the country's population was either homeless or living in inadequate shelter. This deficit was exacerbated by the quakes and there is limited domestic capacity in the housing sector to meet the need.

During the emergency relief effort after the earthquakes, the GOES, through the country's Social Investment Fund (FISDL) and the military, focused its efforts on providing more than 218,000 temporary houses, food, medicine and water to earthquake affected families. The United States Agency for International Development's Office of Foreign Disaster Assistance (OFDA) supported this effort by providing more than 22,000 temporary houses units through grants to several PVOs, including 11,247 built by CHF.

The United States Government (USG) through USAID implemented a total contribution of \$170 million for earthquake reconstruction in El Salvador. A Special Objective entitled "Lives of Targeted Earthquake Victims Improved" was approved and in order to accomplish this Special Objective, USAID/El Salvador implemented the Earthquake Recovery Program. A key goal of the Program was to restore community infrastructure for the rural poor, emphasizing housing, schools, health facilities,

markets and potable water systems. A major and urgent problem to be addressed during the reconstruction stage was to provide permanent houses for 26,000 rural poor whose houses were destroyed by the earthquakes. The majority of the most affected families were living in small and fragile shelters, under high health risk conditions. To address this problem, USAID expedited implementation of housing reconstruction. In phase one of the Earthquake Recovery Program, USAID signed cooperative agreements with six PVOs, to build more than 4,300 permanent houses for earthquake victims, including 1,315 built by CHF. Under phase two of the program, seven PVOs built over 13,100 additional housing units.

USAID/El Salvador awarded \$20,075,769.61 to CHF International through Cooperative Agreement No. 517-A-00-02-00078-00 to implement the “Accelerated Housing Reconstruction Activities (AHORA)” in El Salvador. The AHORA Program originally contemplated the construction of 5,030 permanent housing units with their respective complementary and mitigation works for victims of the earthquakes in the departments of La Paz and Usulután. On July 1, 2004, Modification #5 was signed by USAID to reduce the housing target to 4,703 in order to redirect some housing investment into municipal City Halls and construct additional mitigation works.

2. Expected Results

The primary outputs of CHF’s AHORA Program according to the Cooperative Agreement and its six modifications were as follows:

- * 4,703 beneficiary families (more than 23,000 persons) approved in accordance with the USAID selection process in conjunction with the USACE, ILP and the CRLs.
- * 4,703 permanent, earthquake-resistant, 40 M² homes, including complementary water and sanitation works, built for victims of the 2001 earthquakes in 30 municipalities and 150 communities in the departments of Usulután and La Paz.
- ** Repair and reconstruction of up to eight municipal City Halls.
- Latrines built (including both pit latrines and dry composting latrines) as needed.
- Washbasins (pilas) installed as needed.
- Grease traps, soak pits, and leach fields constructed for grey water disposal as needed.
- Repair of latrines and potable water systems as needed.
- Mitigation works (retaining walls, elevated platforms, etc.) for individual family plots as needed.
- Preparation of local emergency plans in target communities as needed.
- Training of beneficiaries in basic sanitation and environmental management practices as needed.
- Develop improved earthquake-resistant house designs and construction techniques for use by local NGO/PVO housing providers and residents of targeted communities in order to mitigate the impact of future quakes.
- Strengthen the institutional capacity of NGO/PVO partners to provide affordable housing.

* Reflects a change from the original deliverables.

** Added in the June 2, 2003 modification.

3. Core Program Activities

PLANNING AND MOBILIZATION

Before the houses could be constructed, many different steps needed to be carried out. Most

importantly, beneficiaries were rigorously selected to ensure that USAID criteria are adequately met.

This 16 step process entailed:

- A. Community selection
- B. Environmental impact assessment
- C. Individual beneficiary selection
 - i. Gender
 - ii. Land ownership
 - iii. USACE site inspection

A. Community Selection

Potential communities were visited in coordination with municipal authorities, and contacts established with community leaders to organize community members and select beneficiaries. Communities were selected based on the level of damage suffered due to the earthquakes and on the levels of environmental and economic vulnerability facing the victims, as well as on the interest and organization of the local government and community leaders. CHF identified **189** communities in **36** municipalities and six **(6)** departments for inclusion in the AHORA Program. All beneficiary selection was finally completed by the third quarter of FY04, with the last beneficiary approved by USAID and ILP on June 4, 2004.

B. Environmental Impact Assessment

Once the communities that were included in the reconstruction process had been identified, an environmental assessment was carried out for each one. These assessments were completed by CHF technicians who analyzed the environmental risks facing each community (risk to flooding and landslides among others) using a guide designed and provided by USAID. These technicians were trained and had acquired experience by visiting sites with USAID environmental staff. The completed guidelines were revised by the Program Manager and approved by the Associate Director of Programs.

If it was determined that mitigation measures must be implemented in order to ensure the safety of a house and its inhabitants, then a program to implement these measures was formulated. Only in cases where CHF was uncertain about a specific site, was USACE/USAID contacted to program a visit to verify the site in question.

197 environmental assessment guides were developed in communities in the departments of La Paz, San Vicente, Usulután, San Miguel, Ahuachapán and Sonsonate. All were submitted to and formally approved by USAID.

C. Beneficiary Selection

The selection of beneficiaries under the AHORA Program centered on the need to ensure that families that receive a permanent home meet all the eligibility criteria set forth by USAID in RFA El Sal 519-02-A-003 and listed below:

- Be a permanent member of the target community;
- Have suffered the total loss of their only house during the earthquakes referenced herein. The total loss of a house is defined as: “A house which because of the damage caused by the earthquakes is in

such condition that it represents a hazard for the family to continue living in the house, or one that was totally destroyed”;

- Your combined family income cannot exceed two minimum monthly salaries as established by the Government of El Salvador (At the close of the Program, this amount was \$316.80 (\$158.40 x 2). At the beginning of the AHORA Program the minimum monthly salary was \$144. In June 2003, the GOES increased that rate by 10% to \$158.40).
- You must own your own land with either a legally registered land title on file with the *Centro Nacional de Registros* (CNR) or a title that can be legalized by the *Instituto Libertad y Progreso* (ILP).
- Re-build their houses in areas of an acceptable level of risk from future earthquake damage, mud slides, etc. and reconstruct in non-environmentally sensitive areas.

In order to comply with USAID beneficiary requirements, a form was designed and utilized by CHF to collect information on the socio-economic circumstances of each family. This form collects information on damage from the earthquakes, monthly income, number of family members, and employment status of income-earners. This is done to target assistance to the neediest families, and to ensure that USAID criteria are met.

The legal documents and surveys collected were revised by a CHF Social Promoter, who was trained to sort documents based on legal and socio-economic criteria. After this initial screening, legal documents were submitted for revision to the *Instituto Libertad y Progreso* (ILP) – the Salvadoran government institution working with USAID support to validate land ownership status.

CHF worked with local partners to facilitate this process. We utilized agreements, approved by USAID, with ASALDI, OEF de El Salvador, and Camara Junior to assist in processing beneficiaries in the Departments of La Paz, San Miguel, Usulután, and San Vicente.

i. Gender

CHF’s methodology is highly gender-sensitive. Single mothers are a priority in the beneficiary selection process, due to their greater economic vulnerability. In addition, women are encouraged to participate in beneficiary selection committees and in collective decision-making. Furthermore, they are encouraged to participate in the construction process, thus acquiring additional skills and capacity.

The final beneficiaries of the housing component of the AHORA Program were 2,273 women and 2,430 men.

ii. Land ownership

Establishing land ownership is one of the key determinants in the beneficiary selection process. In order for a case to be qualified, the land title must be registered at the *Centro Nacional de Registros* (CNR). This procedure is carried out through the ILP. Once land ownership is verified, the ILP issues a certification of its legal status, qualifying the case. The situation regarding the remission of documents and responses from the ILP through June 30, 2004 is as follows:

Summary of Beneficiary Selection Process

Documents submitted to ILP	6,963*
Documents rejected by ILP for legal non-compliance or because they were already submitted by another NGO	720*
Documents rejected by CRL for socioeconomic/technical non-compliance	520*
Documents rejected by USAID	101*
Documents rejected by CHF after technical inspections	682
Transfers to Samaritan's Purse and Salvation Army	168
Transferred to CHF's USDA funded PROMOVER Program	17
Documents with final ILP approval valid for construction	4,755

* These numbers include 240 REDES beneficiaries that were given to CHF by USAID; 137 beneficiaries transferred from the Salvation Army; 31 beneficiaries transferred from Samaritan's Purse; and 272 taken from the census conducted under Phase I and the USDA Program.

CHF developed an effective screening and processing mechanism for the selection of beneficiaries, with a minimal number of cases being rejected for legal non-compliance (**only 10.3%**). Nevertheless, due to the exceedingly lengthy period necessary to complete the selection process (five and a half month average), we encountered a higher drop out rate (**18.7%**) for socioeconomic and technical reasons. The most common reasons encountered were: the beneficiary built a house by his/her own means or received aid from another organization; the beneficiary left the community or country looking for work; or the beneficiary refused to demolish his old adobe or wattle and daub house which was damaged in the quakes.

D. Challenges in the Beneficiary Selection Process

During Phase I of USAID's housing reconstruction program initiated in May 2001, the beneficiary selection process involved eight steps, including approvals by CHF, USAID, and the ILP, as described below:

Step 1: Municipality Visit and Environmental Assessment

CHF: Contact established with municipal authorities to define a preliminary list of potential beneficiaries and complete an environmental assessment then submitted to USAID.

Step 2: Contact with Community Leaders and Beneficiaries

CHF: Coordination with selected communities to prepare site maps and organize the collection of required beneficiary documentation.

Step 3: Collection and Review of Socio-Economic Data and Title Documentation

CHF: Collection of socio-economic and legal information including copies of legal documents.

Step 4: Processing Documentation

CHF: Review and submission of legal documents to the ILP.

Step 5: Legal Approval

ILP: Reviews and approves documentation and notifies CHF.

Step 6: Environmental Approval

USAID: Reviews and approves environmental assessment submitted by CHF.

Step 7: Engineering and Environmental Technical Visit

CHF and USACE: Site inspection of beneficiaries already approved by ILP, with a USACE trained engineer. Production of final list of approved beneficiaries.

Step 8: Selection Committee

CHF: Final screening by a community-based selection committee, under CHF coordination. Production of official list of beneficiaries for construction, coordinated by CHF with the municipality and the communities.

USAID's RFA El Sal 519-02-A-003 was based on the above beneficiary selection process, adding only the additional requirement of including the geodesic coordinates of each selected site. CHF's AHORA proposal, therefore, was formulated and submitted based on this selection process, carefully calculating time and budget needs to fit these beneficiary selection steps. However, within days after the signing of the AHORA Cooperative Agreement No. 519-A-00-02-00078-00 on June 13, 2002, USAID informed CHF of a number of changes to the beneficiary selection process that, while well-meaning and in pursuit of improvements to the process, added or modified steps in a way that increased the time needed to reach the final approval of each beneficiary by several months. The new process, formally approved by the ILP, VMVDU and USAID on July 23, 2002, involved 16 steps, as described below:

Step 1: CHF proposes to USAID the specific municipalities to be targeted within the Departments assigned by USAID.

Step 2: VMVDU reviews and approves municipalities to be targeted by CHF.

Step 3: VMVDU informs municipality and requests the formation of the Local Reconstruction Committee.

Step 4: CHF and ILP establish weekly coordination meetings to define municipalities where censuses are to be taken.

Step 5: CHF coordinates with ILP to inform Local Reconstruction Committee of program requirements.

Step 6: Local Reconstruction Committee produces a potential list of beneficiaries and gives it to CHF and ILP.

Step 7: CHF carries out the environmental assessment of selected communities.

Step 8: CHF produces a list of communities that meet environmental criteria.

Step 9: CHF and ILP coordinate meetings with communities to schedule censuses.

Step 10: CHF processes socioeconomic data and title documentation and gives its socioeconomic approval.

Step 11: CHF processes technical inspection data, produces risk maps and sends beneficiary matrix along with maps and environmental guide for USAID site approval.

Step 12: USAID sends a USACE engineer to review environmental site conditions and produce a list of beneficiaries that comply with environmental requirements and sends it to CHF and ILP.

Step 13: ILP revises list of beneficiaries complying with socioeconomic, environmental and legal requirements and produces a preliminary list of approved beneficiaries.

Step 14: CHF presents the preliminary list of ILP-approved beneficiaries to the Local Reconstruction Committee in coordination with the VMVDU.

Step 15: Local Reconstruction Committee reviews and ratifies the preliminary list of approved beneficiaries.

Step 16: CHF sends the preliminary list ratified by the Local Reconstruction Committee to ILP. After a review of the legal status of land titles to be sure they have not changed, ILP produces the final and official list of approved beneficiaries.

Comparing the original process with the new one, the impact on the timeline for beneficiary selection can be quantified as follows:

Steps 1- 9 include seven new steps added to steps 1-2 of the Phase I selection process, which previously were coordinated directly by CHF. These new steps involve additional actors, ILP and the VMVDU, which slows down the process by an estimated half month required to coordinate activities.

Steps 11-12 are new in the sense that they require the preparation of risk maps and also those USAID site inspections and environmental approvals be in place and submitted to ILP before the issue of preliminary legal approvals. The time required to submit beneficiaries for approval to USAID, complete the actual site visit and receive site approvals from USAID adds an estimated one month to the process.

Steps 14-16 are new and have an impact directly on the time required to receive the ILP's final approval since the preliminary list has to be ratified by the Local Reconstruction Committee, and then sent back to the ILP to obtain the final legal approval. This second review by the ILP often requires it to go back to the Title Registry (CRN) to check if land ownership has changed since the first review. Also, the preliminary list must be presented to the committee in the presence of a VMVDU delegate, which slows down the process due to the need to schedule meetings. These changes added an estimated time delay of 1.5 months.

Prior to the start of the AHORA Program, CHF had been collecting information concerning approximately four thousand prospective beneficiaries and had pre-screened them for presentation in June 2002 to the ILP. Then, the ILP made a change to the format of the submission documents, so CHF had to re-write the documentation of all the pre-screened beneficiaries and furthermore, in cases where the census was older than 3 months, new signatures had to be collected on the beneficiary's documents. Despite the change, CHF was able to get batches of several hundred beneficiaries ready for the ILP before the end of June. Nonetheless, the ILP would not accept any beneficiaries from CHF until the former had completed some internal preparations. The ILP did not accept the first batch of beneficiaries from CHF until July 29, 2002, and then restricted the submissions to lots of 500 per week. CHF had presented in its accepted proposal timeline that 4,000 beneficiaries would be presented to the ILP in the first three weeks after signing the agreement, as these beneficiaries were already pre-screened. Due to the new USAID format changes and restrictions mentioned, this goal could not be accomplished until November 18, 2002, which represented a loss of four months in the timeline.

Once submitted to the ILP, its granting of final approvals could not keep pace with official timetables (see Appendix 1). In fact, during the period from December 20th, 2002 to June 30th, 2003, CHF only received 579 final approvals from the ILP though it had submitted 4,455 beneficiaries to the ILP throughout that same period. These same 579 approvals were also not geographically concentrated enough to build efficiently. More approvals were needed to escalate construction activities. Waiting for these ILP approvals delayed significant construction start-up by more than three months. In the quarter, CHF received final approval of 113 beneficiaries from ILP. It was not until June 4, 2004, that the ILP

approved the last beneficiary for which a house could be built, nearly two years after signing the Cooperative Agreement.

For more detailed information, see the attached bar chart in Appendix 1 which demonstrates the difficulties that CHF encountered in receiving final approvals from ILP since the beginning of the Cooperative Agreement.

E. US Army Corps of Engineers Site Inspection

The environmental impact assessment and a list of the potential beneficiaries were sent to USAID. A site-by-site visit was programmed w/ USACE. On those occasions, each construction plot was visited to assess the environmental conditions and identify mitigation actions, if any, that needed to be taken. This list was prepared beforehand and filled-in during the visit. This list was signed by the CHF and USACE representatives and became the qualifying document for each site.

CONSTRUCTION PHASE

Once the legal status of each plot of land had been approved by the ILP and USAID, CHF began the construction process. The activities carried out were the following:

A. Technical inspections

An engineer or architect visited each one of the sites where construction was planned. A technical inspection of the characteristics of the terrain was carried out (accessibility, dimensions, access to basic services, environmental risk, drainage and other elements were considered), as well as the house damaged by the earthquake. After this inspection process had been completed, construction began planning.

B. Housing Projects

After the technical approval of each site, the housing project was initiated. At the same time, the method of implementation was decided upon: direct construction by CHF, bidding out to private sector construction firms, or sub-awards to NGO partners.

1) CHF Direct Build

At the start of AHORA Program, CHF directly built 255 housing units. They were the first to break ground in September 2002. CHF chose to build a small number of homes themselves under the Program, in order to better understand the challenges of building these particular designs. To scale up production, CHF incorporated private sector builders and NGO partners. In this past quarter, a large number of general contractors that had actually already signed a contract, later declined to build due to the hyper inflation in the world steel market. CHF therefore built an additional 443 units directly to complete the 4,703 target. Thus, the total number of units built directly by CHF was **698 houses**.

In addition, CHF had to unexpectedly adjust its approach in the last months of the Program to finish a total of **368 units** that were abandoned by various NGOs and general contractors due to either cost overruns from inflation or a lack of technical capacity to produce the deliverables on time. These houses were left in a variety of stages from foundations to finishes. CHF organized a “SWAT team” of

architects, engineers, masons, carpenters, electricians, plumbers, and mechanics to rapidly move into abandoned housing projects, assess the remaining work to be done including material purchases, resume construction and finish the project within the timeframe of the Cooperative Agreement. Though expensive, this SWAT team demonstrated CHF's flexibility to adjust to the changing parameters of the Program over time, our exceptional technical capacity, and our commitment to USAID to reach our programmatic deliverables on time.

1) Private Sector General Contractors

Using CHF's in-house databank of over 155 construction companies, including more than 30 qualified specifically for housing, CHF operates a proven, transparent bidding process to award contracts to private firms. Under the AHORA Program, the bidding process in some cases is handled for CHF by *Fundación Techo para un Hermano (FTPH)* through a sub-award that CHF signed with them on November 4, 2002. In addition to administering the bidding process, FTPH administers the construction and supervision contracts under strict CHF supervision. FTPH covers their own administrative costs, and for every \$5 that CHF spends to cover direct construction costs of the contracts, FTPH donates \$1 toward the same. This innovative arrangement helps FTPH raise funds among the Salvadoran business community as cost share for the AHORA Program. It also helps strengthen El Salvador's housing capacity within the NGO community. FTPH signed contracts with 15 different construction companies for a total of **1,625 houses**.

Besides those private sector companies that work on the AHORA Program under a contract administered by FTPH, CHF also elected to sign contracts directly with certain builders. These contracts allowed us to fill certain geographic gaps left by CHF direct builds or NGO/PVO partners without overburdening the institutional capacity of FTPH. Due to the random manner that beneficiaries were approved by the ILP, coverage gaps existed in certain municipalities and communities that were not contemplated in current contracts and sub-awards. This contracting mechanism proved to be the most flexible and efficient in meeting those needs. We directly contracted 19 construction firms to build a total of **1,946 houses**.

3) NGO/PVO Partners

CHF actively incorporated a wide range of actors in the construction process, encompassing local NGOs and international PVOs. Since the beginning of the Cooperative Agreement, 28 NGOs/PVOs submitted proposals to CHF to participate in the AHORA Program as sub-awardees (based on terms of reference established by CHF). After extensive evaluation, CHF only signed sub-award agreements with four NGO/PVO partners for a total of **435 houses**.

We originally anticipated a far greater participation from the NGO sector in program implementation, however, upon review of the proposals submitted we discovered that most lacked the institutional capacity to implement housing projects, did not have sufficient counterpart funding to complement project financing, could not acquire the necessary bonds to insure the work, or represented too high a operational and financial risk to CHF and USAID.

C. Organization of Housing Projects

In the field, one or more job foremen or site superintendents (Maestro de Obra) are hired per project, and he/she directly supervises the skilled labor (masons, plumbers, electricians, carpenters, etc.) and the

beneficiary sweat equity. The resident engineer develops a schedule for the implementation of the construction project and informs material suppliers on the needs for materials, tools and equipment, and other elements. The social promoter organizes work groups with the beneficiaries that supply unskilled, volunteer labor and coordinates with the foreman and resident engineer.

D. Quality Control and Construction Supervision

The AHORA Program implements an 11 tiered construction supervision system that includes participation by CHF, general contractors/NGO partners subcontracted by CHF, and the USACE subcontracted by USAID. The system is designed to insure the maximum amount of quality control possible during the construction process.

CHF directly implements and oversees six tiers of the system, including:

- Soil and material testing labs. These labs not only test the type and capacity of the soils on each site, but also the materials used in the construction.
- External supervisors (engineers, architects, or maestros de obra).
- Technical monitors (engineers and architects).
- Coordinators.
- Managers.
- Associate Directors.

General contractors and NGO partners manage four tiers of the system, including:

- Maestros de obra.
- Resident engineer.
- Coordinator.
- Manager.

USAID contracts out to a third part to provide the final tier of the system:

- USACE field inspectors.

Though each step/position supervises a variable quantity of houses, each of the 11 steps are critical to providing strict oversight of construction in order to insure that the houses comply with CHF/USACE standards and specifications. For instance, CHF external supervisors along with maestros de obra from the builders/NGOs, have a more permanent process in the construction of each and every house. However, their role is no more important than that of USACE. The roles and levels of control of each step differ, but they are all integral to the quality of the final product.

Quality control issues still existed depending on the housing project and the specific quality of the implementer and the tradesmen (particularly masons), however the construction supervision system described above greatly reduced the problems that could potentially exist.

E. Community Participation

Crucial to the construction process is the participation of the beneficiaries and communities. Since the houses are provided to the beneficiaries as a grant, the only ownership that they have in their future homes is through their sweat equity. An assisted self-help methodology allows for the greatest participation on the part of the beneficiaries while still maintaining a high standard of quality control in the final product. It is of the utmost importance that the families feel pride and ownership in the process

and the product, for then their pride in the home will lead to better maintenance and upkeep of the property. Under the AHORA Program, CHF's social promoters organize community labor at all phases of the housing project and ensure that PVO/NGO partners and private sector contractors fulfill this requirement.

F. Final Results, Housing Construction and Related Complementary and Mitigation Works

The AHORA Program finished construction of its last house on August 28, 2004. House number **4,704** (one over the established deliverables) was finished in San Francisco Javier, Usulután. CHF also completed a total of **4,575** washbasins (pilas), **4,528** latrines (combined total of pit latrines and dry composting latrines), **4,510** grease traps, **4,284** soak pits, **191** leach fields, **124** grey water collection tanks, and **728** mitigation works over the course of the Cooperative Agreement.

CHF original planned to implement three construction systems similar to our approach in phase one of USAID's Earthquake Recovery Program. However, in the end we only implemented two construction systems in the AHORA Program since the cast-in-place concrete system was too expensive due to increased transport costs, reduced beneficiary sweat equity, and was not appropriate to the highly disbursed geographic nature of the Program. In the end, 2,985 of the houses were built with reinforced concrete block walls. 1,719 of the houses were built with extruded polystyrene panels. In all cases, the roofing, flooring, interior partitions, electrical system, plumbing system and finishes remained the same. Seven different foundation designs were implemented depending on the soil type and its bearing capacity. Four urban house designs and four rural designs were implemented to provide a variety of products to the donor and the beneficiary depending on the location, size and conditions of each house plot plus the number of family members. All designs were between 40 and 42M² and exceeded all USAID and USACE criteria.

In the first quarter of FY03, USAID approved a geographic expansion of the Program to include the departments of San Vicente and San Miguel. In the third quarter of FY04, at USAID's request, CHF expanded the geographic scope of the Program again to include the Departments of Ahuachapán and Sonsonate in the west of El Salvador. The following are the housing totals by Department:

Ahuachapán	54 units
La Paz	1,471 units
San Miguel	289 units
San Vicente	268 units
Sonsonate	25 units
Usulután	2,596 units

G. Municipal Infrastructure Reconstruction Activity

The 2001 earthquakes severely damaged municipal infrastructure ("Alcaldías" or City Halls) in all of the affected Departments. However, due to the emphasis placed on more urgent needs like housing and potable water, the municipal offices were left until two years after the quakes to be incorporated into USAID's Earthquake Recovery Program. A key goal of the overall Program is to restore community infrastructure for the rural poor. Included in this social infrastructure are the municipal offices that were damaged or destroyed by the quakes.

On June 2, 2003, USAID modified the scope of the AHORA Program to include a new programmatic activity for the reconstruction/repair of municipal buildings where CHF had ongoing reconstruction activities in a particular municipality or in a neighboring community. This \$845,000 activity was designed to repair and/or build up to eight Municipal Offices over a 15-month period, while effectively involving municipal authorities, and community leaders in the design and construction process. The proposal was made with estimated budgets, but when the design stage was finished and official construction budgets were completed, the amount required to finance the civil works was considerably higher. Modification #4 of the Cooperative Agreement increased the budget of this component to \$1,452,576 in order to be able to construct at least five municipal buildings. On July 1, 2004, modification #5 was signed, raising the budget for this component to \$1,559,009 in order to complete six municipal buildings and finish designs on two more.

The City Halls constructed were:

- 1) San Francisco Javier, Usulután
- 2) San Agustín, Usulután
- 3) San Juan Tepezontes, La Paz
- 4) Santo Tomás, San Salvador
- 5) San Carlos, Morazán
- 6) Chapeltique, San Miguel

The City Halls designed (including a complete set of working drawings and specifications) but not built were:

- 7) Berlin, Usulután
- 8) Chinameca, San Miguel

CHF sub-contracted the architectural and engineering designs of all eight buildings. Then we solicited competitive bids from private sector general contractors for the construction of the six City Halls that were selected by USAID. CHF provided technical oversight to the entire process including the design, bidding, contracting, construction supervision, and quality control aspects of the construction. Given the size and scope of the City Halls, which were between 239 and 569 square meters, each building took between four and a half months to a little over six months to construct. Because of severe structural damage to the original buildings, four of the City Halls needed to be demolished and new buildings constructed in their place. Only San Carlos and Santo Tomás were renovations and additions to the original structures.

During September 2004, City Halls in San Juan Tepezontes and San Francisco Javier finished construction. San Agustín, Chapeltique, San Carlos and Santo Tomás were completed during October 2004, with the last building, Santo Tomás, finishing on October 25, 2004. (This represents a correction from the 4th Quarter FY04 report.)

CHF experienced considerable delays in this component of the Program directly due to USAID's CTO requiring changes to the scope of work of each of the six City Halls subsequent to written approval of the construction documents (working drawings and specifications) by USAID. These change orders were required even after the bidding and contracting process was completed and all six buildings had broken ground. In some extreme cases, the CTO required changes not in our original scope of work

even after the building had completely finished construction. Change orders included, for example, a change to the gage of steel in the roof spec, change to the size of a septic tank, and change to the window spec. Though perhaps minor in the overall scope of these six construction projects and the AHORA Program as a whole when evaluated individually, each of these changes caused time delays and cost increases that had to be assumed by CHF.

H. Water and Sanitation

Through its work in hundreds of communities affected by the earthquakes, and in specific analyses that it has carried out, CHF has assessed the pattern of damage and destruction to drinking water supplies. In particular, among the beneficiaries of the housing program, such damage includes: collapse or contamination of wells, damage or destruction of pumping equipment, damage or destruction of water distribution systems, and damage or destruction of water storage facilities.

In response to these problems, CHF works with housing beneficiaries as needed to guarantee safe access to potable water and sanitation services by building or repairing wells and water systems, as well as latrines.

In addition to the repair of water systems and latrines, CHF is also conducting workshops on solid and liquid waste management in beneficiary communities as an integral component of the AHORA Program, running parallel to housing reconstruction. Through a series of participatory workshops, CHF environmental staff trains beneficiary families and community leaders in the proper use and maintenance of their new latrines (either pit or dry composting), grease traps, and soak pits. The following chart documents the results of these trainings during the quarter:

Training in Basic Sanitation

Indicator	Results Cumulative Totals
No. of Communities Attended	268
No. of Municipalities Attended	36
No. of Departments Attended	6
No. of Direct Beneficiary Families	4,698
No. of Indirect Beneficiary Families	955
No. of Training Workshops	166
No. of Persons Trained in Basic Sanitation	4,698
No. of Women Trained	2,324
No. of NGO Partners Strengthened in Basic Sanitation Training	8
No. of Cleaning Campaigns Completed	36
No. of Health Units Participating – coordination with the Ministry of Health	10

I. Disaster Mitigation and Preparedness

By far the most important disaster mitigation undertaken in the Program is that the house designs and construction systems are earthquake-resistant and will withstand the impact of future minor and major tremors and quakes far better than the former housing occupied by the beneficiary families. The importance of these mitigation measures incorporated into the designs cannot be understated for they insure the health, safety and welfare of the families and the general public.

In addition to resources for the construction of houses, funds have been designated to carry out mitigation measures in areas where such measures are necessary for the houses' security. There are a range of mitigation measures that are planned, each tailored to the specific circumstances. Among those that can be mentioned are the following:

- Retaining walls and/or living (green) barriers to stabilize slopes;
- Raising the floor of the house in areas prone to flooding;
- Drainage channels (swales) around the perimeter of the house for storm water control;
- Protection of wall and foundations in buildings adjacent to those to be constructed; and
- Engineered fill in specific house lots where the soil type has a high organic or clay content.

The AHORA Program constructed **728** mitigation works among the 36 municipalities and 189 communities where the Program operates. (This represents a correction from the 4th Quarter FY04 report.) These mitigation works have been built through a variety of sources including USAID, FISDL, NGO partners, in-kind donations from the Mayors, and beneficiary sweat equity and material acquisition. In order to minimize the impact on the overall Program budget, all possible efforts are made to construct the needed mitigation works through cost share, such that USAID funding can be designated primarily to the construction of housing units.

One of the more important mitigation works that CHF implemented under the AHORA Program was the planting of living (green) barriers or fences. These living barriers serve to stabilize slopes and control erosion, as well as to improve and protect the overall environment. They are designed as a complement to not in lieu of other mitigation works like retaining walls. CHF planted 17,454 lineal meters of grasses and plants around the various house sites where we built. On average, we sowed 15 lineal meters of barrier per family which will quickly reproduce in years to come so that the protected areas can be expanded. We employed beneficiaries from our USDA funded PROMOVER Program to harvest the grasses and plants which we used, and our agricultural engineers provided technical assistance to our homeowners regarding where and how to sow the barriers, as well as how to take care of them.

As a value added to the AHORA Program, CHF took the initiative to incorporate a reforestation component into the housing program. Tree seedlings serve to improve the environment in a country almost entirely deforested as well as serve as a symbol of returning to the earth what we use in the construction process. We encouraged the families to plant their seedlings the same day their house was inaugurated so that the tree could grow along side their family in their new home. CHF donated approximately 7,500 seedlings to our beneficiaries. The majority of the seedlings were fruit trees so that they could provide the families with some extra food or income in addition to shade. The types of trees included: cashew, orange, lemon, mango, avocado, and papaya. We also produced a few shade trees

such as “madrecacao,” “chaquiro,” “casia,” and “cortez blanco.” CHF established a small nursery in its Usulután field office to plant and care for the seedlings in their first months before they could be delivered to the families.

In the area of disaster preparedness, CHF strengthened local capacity to respond to future natural disasters and promoted a new attitude of prevention and mitigation of risks in the communities. This effort included training in risk management, the organization of local emergency committees, and the development of risk mitigation and prevention plans in each community.

The objectives of this component of the AHORA Program were to a) organize local emergency committees and develop prevention and mitigation planes in the beneficiary communities, and b) strengthen the municipal emergency management network by means of linking the local/community level of emergency response with the municipal level in order to counteract the occurrence of a destructive event, natural or man-made.

The process of training and technical assistance of community leaders was highly participative due to the use of distinct techniques and reflective group dynamics, complemented by site trips in and around the attended communities. Disaster preparedness in the communities is taught through a series of three workshops with participation from local leaders and housing beneficiaries. The three workshops were structured as follows:

Workshop 1: Conceptualizing of risks and resources in the community, threats and vulnerabilities, map of risks and resources. This workshop also includes a presentation and discussion on the threat of HIV/AIDS.

Workshop 2: Organization of the local emergency committee. National System of Emergencies (SISNAE – the organizational strategy of the Salvadoran government), types of organization, organizational structure of the committee, function of commissions of the committee.

Workshop 3: Planning of risk prevention and mitigation. Steps for the planning, managing the cycle of disasters and the reflection about steps that can eliminate or reduce risks in the short and medium term.

CHF promoters conducted **139** workshops on disaster preparedness in **16** communities in La Paz, Usulután, and San Miguel benefiting **1,195** people directly. As a result of these trainings, **21** local emergency committees were formed and **16** risk mitigation and prevention plans were developed. The following chart documents the complete results of the trainings:

Training in Disaster Preparedness

Indicator	Results Cumulative Totals
No. of Communities Attended	46
No. of Municipalities Attended	16
No. of Departments Attended	3
No. of Direct Beneficiaries	5,300
No. of Indirect Beneficiaries	61,428

No. of Men Trained	1,961
No. of Women Trained	1,663
No. of Disaster Preparation Workshops Conducted	139
No. of Local Emergency Committees Formed	46
No. of Prevention and Mitigation Plans Completed	36

4. Counterpart Investment

The AHORA Program leveraged counterpart resources from NGO partners, beneficiaries, municipalities, communities, the private sector, and the FISDL, among other donors. **CHF International also invested over \$2.5 million of its own funds** as cost share in the Program. Though a considerable sacrifice to CHF as an organization, this investment demonstrated our commitment to USAID to always meet our deliverables on time no matter the cost. No specific cost share target was required under the Cooperative Agreement due to the fixed obligation cost structure. However, CHF is reporting on counterpart in this final report to demonstrate value added. **\$5,502,821.46 in match** was recorded during the life of the Program from a variety of sources (see breakdown in chart below). Including the counterpart investment, **the total budget of the AHORA Program was \$25,578,591.07**. USAID's contribution of \$20,075,769.61, though originally contemplated as 100% of the required funding, ended up covering 78.49% of the total Program costs. The main reason for this considerable change in the original financial conception of the Program was the hyper inflation in the world steel market that began in January 2004. The cost of steel, used in almost all components of the houses and City Halls, increased 157% over the course of the Program. The average inflation in all construction materials from the time CHF submitted its proposal to USAID in April 2002 until the end of the Cooperative Agreement was 34.39%. CHF contemplated only a 3% factor of inflation in its proposal. Since USAID was not willing to recognize this hyper inflation and adjust the amount of the award or the deliverables accordingly, CHF and its partners had to absorb the cost overruns themselves.

Total Counterpart Investment

June 13, 2002 - October 31, 2004

Source	Trainings and Meetings	Beneficiary Sweat-Equity	Services	Materials	Cash	Cumulative Total FY02-04 LOP
I. Housing Construction						
CHF International investment for direct and indirect costs					\$2,568,812.00	\$2,568,812.00
Self/Mutual Help - Sweat Equity		\$764,023.68				\$764,023.68
Community			\$8,592.28			\$8,592.28
Mayors (warehouses and payment of warehouse assistants)			\$219.40			\$219.40
II. PVO/NGO Partners						
Combined total of all 5 partners	\$4,761.18		\$35,859.48	\$18,813.62	\$221,682.00	\$281,116.28
III. Private Sector Cost Share						
Combined total of all 22 corporations (raised directly by CHF)				\$15,000.05	\$164,500.00	\$179,500.05
IV. Fundación Techo para un Hermano (FTPH)						
FTPH 1:5 direct cost match (including those funds raised by CHF)					\$1,034,447.98	\$1,034,447.98
FTPH indirect costs			\$362,500.00			\$362,500.00
V. Trainings and Meetings						
Housing related	\$1,308.57					\$1,308.57
Disaster preparedness and mitigation	\$2,879.24		\$571.43			\$3,450.67
Basic sanitation			\$3,755.30			\$3,755.30
VI. Mitigation Works						
Beneficiaries		\$74,252.87	\$19,269.81	\$92,561.75		\$186,084.43
FISDL					\$21,010.82	\$21,010.82
VII. Municipal Infrastructure Reconstruction Activity						
In-kind counterpart from the 6 Municipalities					\$88,000.00	\$88,000.00
TOTALS	\$8,948.99	\$838,276.55	\$430,767.70	\$126,375.42	\$4,098,452.80	\$5,502,821.46

It should be noted that most likely the total counterpart investment in the Program was significantly higher than \$5.5 million, however we have no way of tracking amounts other than those noted above. Most of the private sector general contractors who implemented housing projects under the AHORA Program claim to have lost significant amounts of money on their projects. Their claim is that due to hyper inflation, among other factors, the per unit cost was considerably higher than what their fixed price contracts with CHF reflected. However, since they cannot substantiate their claims with accounting backup and receipts, we cannot document the estimated investment of their personal funds as cost share.

It is also worth reporting that as part of its efforts to raise cost share, CHF designed and implemented a corporate social responsibility campaign targeted at leveraging the USAID funds to raise match from the Salvadoran business community. Over an 18-month period, CHF/El Salvador raised a grand total of \$644,619.95 including cash and in-kind contributions from a variety of local Salvadoran businesses as well as International Corporations with offices in El Salvador. (This includes funds that passed through FTPH's accounts during the same period but which were raised by CHF.) 22 individual corporations and organizations donated to the campaign including substantial contributions from: Caja Duero of Spain through their affiliate in El Salvador Fedecredito (\$360,878), Comunidad de Madrid (\$104,241), Banco de Comercio (\$60,000), and Sara Lee Branded Apparel (\$30,000), General de Seguro (\$15,000), and Corinca (\$12,000). CHF considers this tremendous buy-in of the private sector into the goals and objectives of the AHORA Program to be one of the greatest successes of the Program.

5. Monitoring and Evaluation

CHF's monitoring and evaluation under the AHORA Program encompassed both financial and technical reviews. Regarding financial reviews, CHF internal auditors evaluated the accounting and financial procedures of each NGO/PVO partner prior to signing a sub-award agreement. This was a critical step that assessed the institutional capacity of the organization to manage CHF/USAID funds with financial integrity and stewardship. Several local NGOs were disqualified from Program inclusion because their accounting and financial practices did not meet CHF/USAID standards for general accounting procedures. Once a sub-award agreement was signed, CHF internal auditors regularly monitored the financial records and accounts related to the programs of partner organizations through monthly and quarterly financial reports and periodic site inspections. In addition, as per USAID regulations, an annual audit was conducted of all partner organizations that receive in excess of US\$300,000 in USG federal funding during the course of their fiscal year.

Regarding technical inspections, CHF engineering and architectural staff conducted regular office and site visits for both NGO/PVO partners as well as for private sector contractors, to assess construction progress and quality control. Regular training sessions were held to insure that proper construction practices and safety measures were met. Training workshops included participants from the USACE, CHF technical staff, NGO/PVO technical staff, private sector builders, construction supervisors, maestros de obra, and in the case of panel construction, representatives of the manufacturers. In addition to these internal monitoring measures, CHF sub-contracted private engineering firms to provide supplemental external supervision for the construction of all housing, City Halls and related infrastructure. See #3, D "Quality Control and Construction Supervision" for more information.

6. Changes to the Scope of Work

On June 2, 2003, USAID/El Salvador modified the Cooperative Agreement, adding \$845,000 and eight

months to the award in order to add a new program component for the repair or reconstruction of up to eight municipal buildings in the areas affected by the earthquakes. The revised total LOP budget increased from \$19,230,769.61 to \$20,075,769.61. The end date of the municipal infrastructure component of the Program is August 31, 2004.

On December 30, 2003, USAID/El Salvador approved a modification to extend the end date of the housing component of the Program from December 31, 2003, to July 31, 2004. The modification also added two new products under the reimbursable cost of the environmental mitigation measures line item, leach fields and gray water collection tanks, which will be built in sites where soak pits are not technically appropriate.

On April 12, 2004, USAID/El Salvador approved a modification to increase the cost reimbursable line item on the reconstruction of municipal buildings by \$607,576, from \$845,000 to \$1,452,576, reducing the deliverables in the housing component by 179 houses, from 5,030 to 4,851. The total LOP budget did not change.

On July 1, 2004, USAID/El Salvador approved a modification to increase the funding to municipal infrastructure and mitigation works, reducing the housing target to 4,703. The modification also classified all program activities under “fixed obligation” amounts, and extended the closing date to September 30, 2004.

On October 1, 2004, USAID/El Salvador approved a modification to extend the completion date of the Cooperative Agreement from September 30, 2004 to October 31, 2004 in order to allow additional time for completion of the municipal infrastructure component of the Program.

7. Lessons Learned

The elements that facilitated the successes of the Program were:

- Financial and human resources. We could not have built 4,704 houses with their corresponding complementary and mitigation works plus six City Halls without adequate financing and staff. In the end, USAID provided 78.55% of the total funding. The remaining 21.45%, totaling \$5,481,974, came from CHF International, the beneficiaries, FTPH, World Vision, the Municipalities, and FISDL, among others. In terms of human resources, CHF highlights the efforts of our army of almost 150 professional local staff as well as the valuable assistance from staff in our offices in the Dominican Republic, Colombia, Honduras, and Serbia. It took a big team effort to pull it off.
- Our NGO/PVO partners and private sector general contractors. These groups did the vast majority of the actual project implementation and deserve recognition for their contribution, particularly since many of them lost money on the job. The professional commitment of those who completed their projects despite the economic hardships is most admirable. We cannot claim that they were all on time, under budget, or produced high quality work, but we can at least say that most of them stuck it out and finished the race.
- Because of their sweat equity, we would say that the families as a group were one of the Program’s successes. Not all of them contributed labor but many did and it certainly helped in achieving our goals while reduce our costs for unskilled labor. CHF's assisted self help methodology, as usual in housing reconstruction programs post natural disaster, was highly successful in increasing beneficiary participation and ownership in the Program; particularly since the houses were donated to the families.

- The Mayors of the 36 municipalities were we built. Some of these contributed construction materials, transport, warehouse space, warehouse managers, mitigation works, etc. Some did not but as a group their cooperation was a success.
- The oversight provided by USACE insured a higher quality product being delivered to the beneficiaries, both for the housing and City Halls components. Their participation also insured that the appropriate mitigation works were implemented to safeguard the beneficiaries and the physical structures for generations to come.
- The coordination and assistance provided by USAID's Earthquake Reconstruction office for the most part was helpful to us. They provided valuable guidance and direction throughout the Program.
- The first 255 pre-approved beneficiaries that USAID gave us in September 2002 was a help in our start-up. Without them, we probably would not have begun construction until 2003. Also the 25 pre-approved families in Sonsonate and 54 in Ahuachapán given to us by USAID toward the end of the Program allowed us to reach our deliverables.

The principal factors that limited the success of the Program were:

- The #1 factor was the beneficiary selection process designed and controlled by USAID and the ILP which caused months of unnecessary delays and as a result massive direct and indirect cost overruns. USAID and the ILP should not have been involved in the process. Beneficiary selection should have been left up to the NGOs/PVOs implementing the programs. In addition, CHF should never have allowed USAID and the ILP to change the process and add eight steps to it over a month after signing the Cooperative Agreement without requesting more time and funding. This is the single largest factor that caused time delays and thus cost overruns in the AHORA Program. Yet, it was not a factor in phase one of the reconstruction program nor in our USDA program.
- Hyper inflation in the world steel market. As stated above in other sections of this report, this is the main reason why CHF, our NGO partners, and the private sector builders lost so much money since the rapid escalation began in January 2004. There are other reasons for cost overruns but this is by far the largest. Since USAID was not willing to provide additional funding or reduce deliverables to compensate for this hyper inflation, the financial losses were significant to all implementers and came at a great sacrifice. Tying this into the first bullet point, if the beneficiary selection process had not taken so long, then we could have built all the houses in 2002 and 2003 before the hyper inflation in steel and thus not lost money.
- USACE caused significant time delays and cost overruns due to their ever changing criteria, double standards and seemingly limitless power/authority. The direct cost of the houses, mitigation works, complementary works, and City Halls went up considerably due to USACE decisions and interventions. In addition, we faced tremendous time delays due to their intervention which in turn caused further financial loss. It was very difficult to manage the fact that each USACE inspector operated a different criteria such that you never knew where you stood. CHF continued building new mitigation works and complementary works in November and December 2004 after the close of the Cooperative Agreement because of new USACE criteria. All these sites were previously approved by USACE. USACE also operated random standards depending on the implementing organisation. The seven implementing NGOs/PVOs and FONAVIPO were each treated differently regarding approval of their housing designs and in their construction processes.
- Monthly and then in 2004 weekly reporting requirements by the Mission along with sporadic special reports throughout the Program were exceedingly burdensome. Often times the AHORA Program did not seem like a housing program but rather a reporting program on a housing program. A great deal of our senior management team's time went to this reporting effort. USAID regulations only require quarterly reporting.

- The overall geographic dispersion of the Program caused astronomical price increases and time delays due to access, transport and labor. Many house sites had to be accessed on foot or horse back. Others could not be accessed during the rainy season due to poor roads.
- Lack of locally available materials at time slowed down production of both housing projects and City Halls. Several times during the Program, CHF purchased construction materials and equipment sourced from Guatemala, Honduras, Nicaragua, Costa Rica, Colombia and the USA, though sold through Salvadoran companies, in order to supplement those products available locally. This took time and caused additional costs due to international transport and customs.
- Lack of qualified local skilled labor at times caused time delays and quality control problems. This was particularly true with those houses constructed with the extruded polystyrene panels.
- Rain delays in 2002, 2003, and 2004 slowed us down due to access getting to the more remote sites. Whole “cantons” were cut off for months. It also caused delays in pouring foundation as the excavations would fill up with rain water.
- Poor quality construction sites caused cost increases and time delays due to the need to provide significant mitigation works and improved foundation designs. In some extreme cases, a retaining wall would cost more to build than the house it was protecting. In certain communities, the soil quality and its bearing capacity was so poor that we had to sink pilings down to 3M in order to support the house structure.

8. Recommendations

The strategies, instruments and interventions that could be useful in future similar programs/projects are:

- Leave the design and implementation of the beneficiary selection process entirely to the NGO/PVO implementing the program. USAID should not get involved in this process for it causes too many delays and cost overruns. In the same line of thinking, USAID subcontracting a local NGO like REDES to help facilitate and expedite beneficiary selection was not effective. All NGOs/PVOs that received REDES beneficiaries had to repeat most of the 16 steps of the selection process over again due to the poor quality of REDES’ work. In similar USAID reconstruction programs, this should be left entirely to the implementing NGOs/PVOs.
- Do not contract with USACE to provide third party construction supervision and technical oversight for it causes huge discrepancies in program implementation and massive delays and cost overruns. Though we admit that there was some benefit to USACE’s participation in the Program, the negatives outweigh the positives.
- Do not use the fixed price contracting mechanism in the future. It is not flexible enough in situations like we experienced in 2004 with hyper inflation and thereby ties the hands of USAID and the implementing partners. In a multi-year reconstruction program, there are too many unknowns that may arise requiring more flexibility, like in the case of hyper inflation.
- Provide more funding for mitigation works including appropriate foundation designs. This was a struggle throughout the Program for both the housing and City Halls components. USACE demanded the mitigations but USAID was never willing to pay for them. In a developing country like El Salvador that is prone to multiple natural disasters, the poor occupy land that is not always suitable for building and extremely vulnerable to natural disasters. Technology does exist to mitigate these risks, but there is a cost. Almost every house we built and all the City Halls had some type of mitigation work incorporated to protect the main structure.
- With regard to the City Halls component, one person at the USAID Mission, in this case the CTO, should not have total control to completely change the program depending on his personal criteria after the Cooperative Agreement is signed (or modified). In our case, the CTO assigned to us

personally redesigned all six City Halls and made significant changes to the specifications and scope of work on each building after the official approval of the construction documents, signing of contracts and groundbreaking. This caused major delays and cost run ups entirely attributable to the CTO's intervention.

- Reduce the number of house designs and construction systems to simplify production and supervision.

9. Appendices

Appendix 1: Final Sequence of Submissions and Approvals of Beneficiaries

Appendix 2: Final Housing Construction Report by Attended Community

Appendix 3: Final Geographic Coverage Map

Appendix 4: Newspaper Articles

Appendix 5: Photos

Appendix 6: Success Stories

CHF International
519-A-00-02-00078-00
\$20,075,769.61
4,704
10/31/2004

Housing Construction Report by Attended Community												
DEPARTMENT	MUNICIPALITY	CODE	CANTON	TOTAL	HOUSES COMPLETED	LATRINES COMPLETED	WASH BASINS COMPLETED	SOAK PITS COMPLETED	GREASE TRAPS COMPLETED	LEACH FIELDS COMPLETED	GREY WATER COLLECTION TANKS COMPLETED	MITIGATION WORKS COMPLETED
Ahuachapán	Ahuachapán	CHF01011101	La Danta	54	54	36	47	0	0	0	54	0
SUB-TOTAL MUNICIPALITY:				54	54	36	47	0	0	0	54	0
La Paz	Jerusalen	CHF08030104	El Conacaste	2	2	2	2	2	2	0	0	1
		CHF08030402	Los Romero	28	28	28	28	28	28	0	0	10
		CHF08030503	Veracruz	62	62	62	62	62	62	0	0	6
		CHF08030001	Zona Urbana	26	26	26	26	26	26	0	0	1
SUB-TOTAL MUNICIPALITY:				118	118	118	118	118	118	0	0	18
La Paz	San Antonio Masahuat	CHF08070203	El Socorro	7	7	7	7	7	7	0	0	0
		CHF08070304	San Antonio La Loma	5	5	5	5	5	5	0	0	0
		CHF08070002	Zona Urbana	8	8	8	8	7	7	0	1	0
SUB-TOTAL MUNICIPALITY:				20	20	20	20	19	19	0	1	0
La Paz	San Juan Nonualco	CHF08100309	El Golfo	20	20	20	20	14	14	0	6	0
		CHF08100907	El Salto	3	3	0	3	3	3	0	0	0
		CHF08100106	Las Delicias	17	17	17	17	17	17	0	0	11
		CHF08100705	Los Zacatillos	20	20	19	19	19	19	0	1	0
		CHF08101008	Tehuiste Abajo	8	8	8	7	8	8	0	0	0
		CHF08101111	Tehuiste Arriba	3	3	3	3	3	3	0	0	0
		CHF08101203	Tierra Colorada	34	34	24	32	33	33	0	0	18
		CHF08100004	Zona Urbana	25	25	24	24	21	21	0	0	15
SUB-TOTAL MUNICIPALITY:				130	130	115	125	118	118	0	7	44
La Paz	San Juan Tepezontes	CHF08120102	La Cruz	1	1	1	1	1	1	0	0	0
		CHF08120203	La Esperanza	2	2	2	2	2	2	0	0	1
		CHF08120304	Los Laureles	6	6	6	6	5	5	0	1	0
		CHF08120001	Zona Urbana	32	32	27	32	19	19	0	11	0
SUB-TOTAL MUNICIPALITY:				41	41	36	41	27	27	0	12	1
La Paz	San Miguel Tepezontes	CHF08140001	Zona Urbana	32	32	27	27	28	28	0	4	3
SUB-TOTAL MUNICIPALITY:				32	32	27	27	28	28	0	4	3
La Paz	San Pedro Masahuat	CHF08150602	El Carmen	5	5	5	5	5	5	0	0	0
		CHF08150001	Zona Urbana	24	24	23	24	24	24	0	0	0
SUB-TOTAL MUNICIPALITY:				29	29	28	29	29	29	0	0	0
La Paz	San Rafael Obrajuelo	CHF08170104	El Carao	18	18	16	12	16	18	0	0	4
		CHF08170203	La Longaniza	51	51	50	37	51	51	0	0	0
		CHF08170301	La Palma	93	93	92	80	91	92	2	0	0
		CHF08170605	San Pedro Mártir	8	8	8	7	8	8	1	0	2
		CHF08170002	Zona Urbana	56	56	44	35	40	50	0	0	6
SUB-TOTAL MUNICIPALITY:				226	226	210	171	206	219	3	0	12
La Paz	Santiago Nonualco	CHF08190505	Jalponguita	66	66	66	66	56	66	0	0	7
		CHF08191908	La Cruz del Mojón	20	20	20	20	20	20	0	0	6
		CHF08190706	Las Guarumas	21	21	20	20	19	21	2	0	7
		CHF08191204	San José Abajo	12	12	12	12	11	12	1	0	4
		CHF08191502	San José Obrajito	20	20	20	20	19	20	1	0	7
		CHF08192003	Santa Cruz Loma	34	34	34	34	34	34	0	0	20
		CHF08190007	Zona Urbana	69	69	64	64	59	65	0	0	5
SUB-TOTAL MUNICIPALITY:				242	242	236	236	218	238	4	0	56
La Paz	Zacatecoluca	CHF08210108	Animas Abajo	1	1	1	1	0	1	1	0	2
		CHF08210321	Buena Vista Abajo	13	13	13	12	13	13	0	0	14
		CHF08210420	Buena Vista Arriba	4	4	4	4	4	4	0	0	4
		CHF08210724	El Amate	23	23	23	23	23	23	0	0	0
		CHF08211022	El Carmen	8	8	8	8	8	8	0	0	0
		CHF08211129	El Copinol	3	3	3	3	3	3	0	0	0
		CHF08211619	El Espino Abajo	22	22	22	22	22	22	0	0	18
		CHF08211703	El Espino Arriba	220	220	220	216	211	220	11	0	88
		CHF08211802	El Socorro	66	66	66	60	65	65	0	1	0
		CHF08212113	Hato de los Reyes	14	14	14	14	14	14	0	0	0
		CHF08212501	La Lucha	75	75	75	66	75	75	0	0	3
		CHF08212905	Los Platanares	33	33	31	33	29	29	0	0	2
		CHF08213026	Penitente Abajo	6	6	3	6	6	6	0	0	0
		CHF08213125	Penitente Arriba	6	6	6	6	6	6	0	0	0
		CHF08213227	Piedra Grande Abajo	4	4	4	4	4	4	0	0	0
		CHF08212718	San Antonio Las Tablas	54	54	54	54	13	54	41	0	45
		CHF08213714	San Francisco de los Reyes	10	10	6	10	10	10	0	0	0
		CHF08213817	San Josecito	8	8	3	8	8	8	0	0	0
		CHF08214023	San Lucas	13	13	13	13	13	13	0	0	0
		CHF08214106	San Marcos de la Cruz	16	16	9	15	16	16	0	0	2
		CHF08214709	Tierra Blanca	20	20	19	20	17	20	3	0	2
		CHF08214812	Uluapa	10	10	10	10	10	10	0	0	1
		CHF08210004	Zona Urbana	4	4	4	4	4	4	0	0	0
SUB-TOTAL MUNICIPALITY:				633	633	611	612	574	628	56	1	181
San Miguel	El Tránsito	CHF12079912	El Borbollón	2	2	2	2	2	2	0	0	0
		CHF12070308	Llano el Coyol	7	7	7	7	7	7	0	0	0
		CHF12070109	Meanguilo / Primavera	4	4	4	4	1	4	0	0	0
		CHF12070411	Moropala	1	1	1	1	4	1	0	0	0
		CHF12070007	Zona Urbana	8	8	8	8	7	7	0	0	0
SUB-TOTAL MUNICIPALITY:				22	22	22	22	21	21	0	0	0
San Miguel	Lolotique	CHF12080101	Amaya	6	6	6	6	6	6	0	0	0
		CHF12080301	El Jicaro	8	8	8	8	8	8	0	0	0
		CHF12080401	El Nancito	5	5	5	5	4	4	0	1	0
		CHF12080501	El Palón	8	8	8	8	7	7	0	1	1
		CHF12080001	Zona Urbana	36	36	36	36	36	36	0	0	1
SUB-TOTAL MUNICIPALITY:				63	63	63	63	61	61	0	2	2
San Miguel	Nueva Guadalupe	CHF12100101	Los Planes de San Sebastián	38	38	38	38	38	38	0	0	1

		CHF12100202	San Luis	7	7	7	7	7	7	0	0	0
		CHF12100003	Zona Urbana	38	38	38	38	33	33	0	0	1
			SUB-TOTAL MUNICIPALITY:	83	83	83	83	78	78	0	0	2
San Miguel	San Miguel	CHF12173303	El Delirio	20	20	20	20	4	4	0	0	0
		CHF12171402	El Progreso	18	18	17	18	18	18	0	0	0
		CHF12172801	San Antonio Silva	22	22	22	22	12	22	10	0	0
			SUB-TOTAL MUNICIPALITY:	60	60	59	60	34	44	10	0	0
San Miguel	San Rafael Oriente	CHF12180204	Piedra Azul	35	35	35	35	16	35	19	0	26
		CHF12180303	Rodeo de Pedrón	2	2	2	2	2	2	0	0	1
		CHF12180406	Santa Clara	10	10	10	10	8	10	2	0	9
		CHF12180005	Zona Urbana	14	14	14	14	14	14	0	0	6
			SUB-TOTAL MUNICIPALITY:	61	61	61	61	40	61	21	0	42
San Vicente	San Lorenzo	CHF10080105	La Cruz	24	24	24	24	24	24	0	0	0
		CHF10080202	Las Animas	44	44	44	44	44	44	0	0	1
		CHF10080301	San Francisco	30	30	29	30	29	29	0	0	2
		CHF10080404	Santa Lucía	21	21	21	20	21	21	0	0	4
		CHF10080003	Zona Urbana	49	49	49	49	49	49	0	0	4
			SUB-TOTAL MUNICIPALITY:	168	168	167	167	167	167	0	0	7
San Vicente	Tecoluca	CHF10111903	La Soledad	21	21	8	19	0	0	0	21	2
		CHF10111803	San Fernando	14	14	14	14	1	1	0	13	2
			SUB-TOTAL MUNICIPALITY:	35	35	22	33	1	1	0	34	4
San Vicente	Verapaz	CHF10130201	El Carmen	34	34	32	34	34	34	0	0	42
		CHF10130401	San Antonio Jiboa	5	5	5	2	1	1	0	0	6
		CHF10130501	San Isidro	6	6	5	6	6	6	0	0	0
		CHF10130101	San José Borja	2	2	2	2	2	2	0	0	2
		CHF10130701	San Juan Buenavista	19	19	19	19	19	19	0	0	4
			SUB-TOTAL MUNICIPALITY:	66	66	63	63	62	62	0	0	54
Sonsonate	Armenia	CHF03020001	Zona Urbana	25	25	23	24	23	23	0	0	9
			SUB-TOTAL MUNICIPALITY:	25	25	23	24	23	23	0	0	9
Usulután	Alegria	CHF11010704	El Yomo	60	60	60	60	60	60	0	0	35
		CHF11010406	La Peña	26	26	26	26	26	26	0	0	1
		CHF11010505	Las Casitas	17	17	17	17	17	17	0	0	0
		CHF11010208	Quebracho	14	14	14	14	14	14	0	0	5
		CHF11010007	Zona Urbana	5	5	5	5	5	5	0	0	0
			SUB-TOTAL MUNICIPALITY:	122	122	122	122	122	122	0	0	41
Usulután	California	CHF11030105	El Pozón	5	5	5	5	5	5	0	0	1
		CHF11030004	Zona Urbana	4	4	4	4	4	4	0	0	1
			SUB-TOTAL MUNICIPALITY:	9	9	9	9	9	9	0	0	2
Usulután	Concepción Batres	CHF11040205	El Paraisal	6	6	6	6	2	6	4	0	0
		CHF11040606	La Danta	16	16	15	16	1	16	15	0	0
		CHF11040902	San Antonio	25	25	25	25	17	25	8	0	8
		CHF11040804	San Ildefonso	26	26	26	26	16	26	10	0	1
		CHF11040003	Zona Urbana	17	17	17	17	16	17	0	0	0
			SUB-TOTAL MUNICIPALITY:	90	90	89	90	52	90	37	0	9
Usulután	El Triunfo	CHF11050203	El Palón	6	6	5	6	6	6	0	0	0
		CHF11050406	La Palmera	14	14	14	14	14	14	0	0	0
		CHF11050302	San Antonio	18	18	18	18	18	18	0	0	0
		CHF11050001	Zona Urbana	69	69	69	69	69	69	0	0	10
			SUB-TOTAL MUNICIPALITY:	107	107	106	107	107	107	0	0	10
Usulután	Ereguayquín	CHF11060106	Anasco	6	6	6	6	6	6	0	0	0
		CHF11060405	Los Encuentros	12	12	12	12	12	12	0	0	0
		CHF11060204	Maculis	18	18	18	18	18	18	0	0	0
		CHF11060007	Zona Urbana	13	13	12	12	13	13	0	0	0
			SUB-TOTAL MUNICIPALITY:	49	49	48	48	49	49	0	0	0
Usulután	Estanzuelas	CHF11070501	El Escarbadero	10	10	10	10	10	10	0	0	0
		CHF11070304	El Ojiste	2	2	2	2	2	2	0	0	0
		CHF11070402	El Tecomatal	10	10	10	10	10	10	0	0	0
		CHF11070003	Zona Urbana	3	3	3	3	3	3	0	0	0
			SUB-TOTAL MUNICIPALITY:	25	25	25	25	25	25	0	0	0
Usulután	Jiquilisco	CHF11080116	Aguacayo	10	10	10	10	10	10	0	0	0
		CHF11080313	Cabos Negros	13	13	13	13	13	13	0	0	0
		CHF11080417	California	57	57	57	57	54	57	3	0	0
		CHF11080611	El Carrizal	34	34	34	32	34	34	0	0	0
		CHF11080808	El Coyolito	43	43	37	41	40	43	0	0	0
		CHF11081414	La Concordia	25	25	25	25	25	25	0	0	0
		CHF11084007	La Cruzadilla de San Juan	31	31	31	31	31	31	0	0	0
		CHF11084118	Las Flores	10	10	10	10	10	10	0	0	0
		CHF11082710	Roquinte	14	14	14	14	14	14	0	0	0
		CHF11082512	Tierra Blanca	19	19	19	19	19	19	0	0	0
		CHF11080009	Zona Urbana	34	34	31	33	31	31	0	2	0
			SUB-TOTAL MUNICIPALITY:	290	290	281	285	281	287	3	2	0
Usulután	Jucuapa	CHF11090211	El Amatlón	34	34	34	34	34	34	0	0	4
		CHF11090107	El Chagüite	22	22	22	22	22	22	0	0	1
		CHF11090305	El Nispero	20	20	20	20	20	20	0	0	6
		CHF11090508	Ilano El Chilamate	20	20	20	20	20	20	0	0	2
		CHF11090606	Ilano Grande las Piedras	30	30	30	30	30	30	0	0	4
		CHF11090412	Loma de La Cruz	13	13	13	13	13	13	0	0	1
		CHF11090913	Tapesquillo Alto	2	2	2	2	2	2	0	0	0
		CHF11090810	Tapesquillo Bajo	9	9	9	9	9	9	0	0	0
		CHF11090009	Zona Urbana	30	30	30	30	25	25	0	0	5
			SUB-TOTAL MUNICIPALITY:	180	180	180	180	175	175	0	0	23
Usulután	Nueva Granada	CHF11120103	Azacualpá de Gualcho	12	12	12	12	12	12	0	0	0
		CHF11120204	Azacualpá de Joco	23	23	23	23	23	23	0	0	0
		CHF11120302	El Amatillo	15	15	15	15	15	15	0	0	0
		CHF11121101	La Palomía	60	60	60	60	60	60	0	0	39
		CHF11120705	Las Llaves	5	5	5	4	4	4	0	0	0
		CHF11120006	Zona Urbana	3	3	3	3	3	3	0	0	3

SUB-TOTAL MUNICIPALITY:				118	118	118	117	117	117	0	0	42
Usulután	Puerto El Triunfo	CHF11140307	El Sitio de Santa Lucía	40	40	40	40	17	40	23	0	6
SUB-TOTAL MUNICIPALITY:				40	40	40	40	17	40	23	0	6
Usulután	San Buenaventura	CHF11160101	El Aceituno	8	8	8	8	8	8	0	0	0
		CHF11160203	El Semillero	12	12	12	12	12	12	0	0	0
		CHF11160302	La Caridad	4	4	4	4	4	4	0	0	0
		CHF11160606	La Tronconada	4	4	4	4	4	4	0	0	1
		CHF11160404	Las Charcas	2	2	2	2	2	2	0	0	0
		CHF11160507	Los Espinos	10	10	10	10	10	10	0	0	0
		CHF11160005	Zona Urbana	13	13	13	13	13	13	0	0	0
SUB-TOTAL MUNICIPALITY:				53	53	53	53	53	53	0	0	1
Usulután	San Francisco Javier	CHF11190208	El Tablón	41	41	41	41	41	41	0	0	0
		CHF11190309	El Zungano	15	15	15	15	15	15	0	0	0
		CHF11190406	Jobal Hornos	24	24	24	24	24	24	0	0	0
		CHF11190607	La Peña	28	28	28	28	28	28	0	0	0
		CHF11190710	Los Horcones	2	2	2	2	2	2	0	0	0
		CHF11190804	Los Hornos	23	23	23	23	23	23	0	0	0
		CHF11190911	Los Rios	8	8	8	8	8	8	0	0	0
		CHF11190005	Zona Urbana	17	17	17	17	17	17	0	0	0
SUB-TOTAL MUNICIPALITY:				158	158	158	158	158	158	0	0	0
Usulután	Santa Elena	CHF11180108	Cerro El Nanzal	66	66	66	66	66	66	0	0	1
		CHF11180811	El Amate	25	25	25	25	25	25	0	0	0
		CHF11180209	El Nisperal	21	21	21	21	21	21	0	0	1
		CHF11180313	El Rebalse	19	19	19	19	19	19	0	0	0
		CHF11180410	El Volcán	30	30	12	26	30	30	0	0	0
		CHF11180506	Joya Ancha Abajo	24	24	21	24	24	24	0	0	2
		CHF11180615	Joya Ancha Arriba	18	18	15	18	18	18	0	0	0
		CHF11180712	Las Cruces	39	39	39	39	39	39	0	0	3
		CHF11189916	Los Jobos	20	20	20	19	20	20	0	0	1
		CHF11180917	Piedra de Agua	13	13	11	13	13	13	0	0	0
		CHF11180007	Zona Urbana	12	12	12	12	10	10	0	0	0
SUB-TOTAL MUNICIPALITY:				287	287	261	282	285	285	0	0	8
Usulután	Santa María	CHF11200103	Mejicapa	13	13	13	13	13	13	0	0	0
		CHF11200202	San Francisco	36	36	35	35	36	36	0	0	0
		CHF11200001	Zona Urbana	52	52	52	50	52	52	0	0	0
SUB-TOTAL MUNICIPALITY:				101	101	100	98	101	101	0	0	0
Usulután	Santiago de María	CHF11210307	El Marquezado	22	22	10	22	21	21	0	0	2
		CHF11210604	Las Flores	15	15	14	14	15	15	0	0	2
		CHF11210706	Las Playas	10	10	10	10	9	9	0	1	0
		CHF11210005	Zona Urbana	55	55	49	53	52	52	0	0	1
SUB-TOTAL MUNICIPALITY:				102	102	83	99	97	97	0	1	5
Usulután	Tecapán	CHF11220205	El Júcaro	8	8	8	8	8	8	0	0	3
		CHF11220404	Los Chapetones	37	37	33	37	37	37	0	0	7
		CHF11220006	Zona Urbana	1	1	1	1	1	1	0	0	0
SUB-TOTAL MUNICIPALITY:				46	46	42	46	46	46	0	0	10
Usulután	Usulután	CHF11230113	El Cerrito	117	117	117	117	103	117	12	0	4
		CHF11230525	El Talpetate	43	43	43	43	43	43	0	0	5
		CHF11230621	El Trillo	37	37	37	37	37	37	0	0	6
		CHF11230424	El Ujushte	119	119	119	119	119	119	0	0	28
		CHF11230820	La Laguna	88	88	87	88	84	88	0	0	4
		CHF11230914	La Peña	44	44	44	44	44	44	0	0	1
		CHF11231022	La Presa	21	21	21	21	20	21	0	0	0
		CHF11230318	Ojo de Agua	155	155	155	155	155	155	0	0	66
		CHF11231215	Palo Galán	13	13	13	11	1	8	7	5	0
		CHF11231323	Santa Bárbara	78	78	76	76	74	75	1	0	18
		CHF11230017	Zona Urbana	104	104	101	103	86	100	14	1	4
SUB-TOTAL MUNICIPALITY:				819	819	813	814	766	807	34	6	136
				TOTAL	HOUSES COMPLETED	LATRINES COMPLETED	WASH BASINS COMPLETED	SOAK PITS COMPLETED	GREASE TRAPS COMPLETED	LEACH FIELDS COMPLETED	GREY WATER COLLECTION TANKS COMPLETED	MITIGATION WORKS COMPLETED
GRAND TOTAL :				4704	4704	4528	4575	4284	4510	191	124	728

TOTAL NUMBER OF DEPARTMENTS: 6

TOTAL NUMBER OF MUNICIPALITIES: 36

TOTAL NUMBER OF COMMUNITIES: 189

Geografic coverage of the AHORA Program

